

THAT WHICH IS CLAIMED IS:

1. A RESURF LDMOS integrated structure realized in a first region (DRAIN_WELL) of a first type of conductivity defined in a semiconductor substrate (P-SUBSTRATE) of opposite type of conductivity and
5 comprising a source region of said first type of conductivity formed in a body region of said opposite type of conductivity, characterized in that

said body region is contained within a superficial portion (BODY_BUFFER_REGION) of said
10 first region (DRAIN_WELL) more heavily doped than the rest of the region.

2. The integrated structure of claim 1, wherein said first region (DRAIN_WELL) has a depth comprised between 1.5 and 4.5 micrometers and doping comprised between 2.5×10^{15} and 2.5×10^{16} atoms cm^{-3} , said
5 superficial portion (BODY_BUFFER_REGION) is comprised between 0.15 and 0.45 micrometers deep and has a doping comprised between 5×10^{16} and 5×10^{17} atoms cm^{-3} and the depth of said body region is comprised between 0.25 and 0.75 micrometers and has a doping comprised between
10 5×10^{17} and 5×10^{18} atoms cm^{-3} .

3. The integrated structure according to claims 1 or 2, wherein said first region (DRAIN_WELL) and said superficial portion thereof (BODY_BUFFER_REGION) are doped with phosphorous while
5 said body region is doped with boron.

4. The integrated structure according to one of the claims 1 or 2, wherein said first region (DRAIN_WELL) and said superficial portion thereof (BODY_BUFFER_REGION) are doped with boron while said
5 body region is doped with phosphorus.